THE ESSENTIAL GUIDE TO
DATA-DRIVEN BUSINESS OPERATIONS

How process mining can help you improve sales, finance and manufacturing, customer service and more

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Do a web search for the phrase "business operations job satisfaction." You'll find some fascinating information. One report says the job has above-average upward mobility, but also above-average levels of stress. It quotes a senior BizOps leader who says the job requires adaptability and agility. Conditions are constantly changing, he said, "sometimes every five minutes."

Sound familiar? If that describes your life, you have our sympathy. If you're like other BizOps pros we've talked with, your day is filled with constant demands for information, questions that lead to an endless loop of more questions and a disturbing whiff of hamster wheel.

And spreadsheets. You didn't think we'd forgotten spreadsheets, did you?

MANY PROMISES,
FEW SOLUTIONS

Lots of different technologies (not to mention vendors) promise real-world insight from your data to improve your business processes. But they use a bewildering array of terms more-or-less interchangeably. Is business intelligence the same as business process optimization? Is data mining the same as predictive analytics? Which one is best for BizOps?

Unfortunately, you won't know if the solution you select lives up to its vague promises until you use it.

Let's take a look at the challenges you face as a business operations professional and the problems you're trying to solve, so we can help you formulate a plan to get started.

First, a little background info.

WHAT IS **PROCESS MINING?**

Process mining is related to data mining — but it goes a step beyond. Process mining doesn't just comb through large, static datasets looking for patterns. Process mining techniques are used to analyze dynamic business event data and operational business processes.
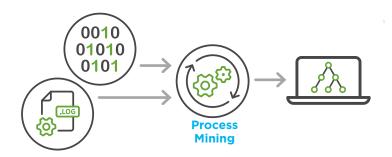
Process mining provides a real-world view of what is actually happening in your business.

In practical terms, process mining provides a real-world view of what is actually happening in your business processes. Process mining can be used to examine three major types of key performance indicators (KPIs):

- **Time KPIs:** How long does it take to complete a particular process?

- **Cost KPIs:** How much does it cost to complete a particular process?

- **Quality KPIs:** Does the outcome of this process meet established criteria?

Process mining can track KPIs for:

| TIME How long does it take? | COST How much does it cost? | QUALITY Does it meet the standard? |

Process Mining

Process mining has a significant advantage over more traditional "as is" analysis: event data. Rather than getting static, stale snapshots of what happened a long time ago, process mining surfaces what is actually happening right now from all your systems to:

- Discover the actual behavior of people, organizations and machines and compare it to models

- Correlate millions of events to show how reality is different from perceptions, opinions and beliefs

- Provide a foundation to continually improve processes in a way that was simply not possible before

Most important, process mining can help you understand the current state of your systems and processes, identify any deviations and get back on course.

PROCESS MINING CAN HELP YOU OVERCOME
TOP PAIN POINTS

Too many systems

It's hard to get an end-to-end view across all systems. You know that better than anyone. A modern organization of any size is dependent on dozens of systems and complex infrastructure that can be a challenge to describe, let alone monitor. But a problem in any one of them, even a small one, can have a significant and snowballing impact on the efficiency and efficacy of the overall process.

Process mining systems are designed with exactly this challenge in mind. We're now able to dismantle the silos that separate different types of data and correlate it all into one dataset. With a tool that can automatically aggregate different types of data, decision makers can see that, for instance, a big sales order got stuck in finance approval, which would be much harder to detect by looking at sales and finance data alone.

Too big to scale

We won't insult your intelligence by trotting out the usual statistics about the growth of data. You understand that firsthand. Hype aside, there is no question that increasing volumes of data from your internal networks, connected devices, website, supply chain management, purchasing, quality control and dozens of other systems create ever-increasing challenges.

A good process mining solution can handle huge amounts of data without a hiccup, and is built to scale as needs grow. First, as mentioned above, they automate the data cleansing and preparation, which speeds things up and makes it easier for the user. And as the field continues to evolve, process mining solutions are increasingly able to analyze ever-larger datasets.

Not enough help

There's a good chance your job has changed a lot since you started (even if you've been at your job for a year). Senior leaders tell you data is the most valuable asset in your organization. But they don't tell you what to do about it. You may find yourself spending long hours manipulating data instead of using it. Maybe you've gone to IT for help and been told to come back in a month. Maybe you have a team of data scientists on standby.

But you probably don't.

If you don't, process mining solutions are designed for you to use on your own, without specialized data skills or help. In short, process mining is your best hope to free yourself from manually trudging through the data so that you can actually make an impact on your business.

The wrong tools

We're guessing you've probably spent a lot of time trying to fit data into a spreadsheet and build formulas to make sense of it. You may have even (reluctantly) become the office Excel expert. But every late night you've spent perfecting pivot tables is time you didn't spend providing real business value (or sleeping).

Remember when we said process mining completes the connection between data and business process? The point is not just to surface the data, but to use it to drive decisions. Process mining solutions are designed with that goal in mind.

No flexible reporting

Have you ever spent hours or days organizing important data and when you present it, you get five more questions (and five more nights of work)? The problem with becoming a spreadsheet magician is you'll be asked to do bigger and more impressive tricks. You need a reporting approach that lets you ask and answer multiple questions without having to pull a pivot table out of your hat.

And no matter how big your bag of tricks, you can't easily create and replicate reports if you have to go back to IT over and over whenever you need more data.

Process mining gives you flexible reporting, lets you create easily shared (and understood) visualizations and dashboards and customize them no matter how many questions your boss asks. Once you've proven the value of your analysis, you won't have to prove it again.

HOW PROCESS MINING WORKS IN DIFFERENT INDUSTRIES

Financial Services

Financial services firms have been forced to rely on qualitative interviews to assess issues with transactional and trading processes. But as transaction volumes have increased and more businesses become digitized, manual processes cannot effectively catch all anomalous behavior. Faced with greater regulatory and audit requirements, financial services companies can use process mining to continuously and comprehensively discover problems in high-volume processes.

Telecommunications

Telecommunications firms rely on customers with high lifetime values in order to grow and sustain their business. But as subscriber volumes continue to grow and the process of activating an account becomes increasingly automated, the risk of failed activations becomes significant. Process mining helps telecommunications companies uncover expensive problems and customer fallout in their order-to-activation processes.

Healthcare

Healthcare organizations have come to rely on digital processes as every step of the patient journey has become automated and medical devices and other equipment have become more sophisticated. A hospital's own data can help improve process outcomes significantly, in every area of operations from appointment scheduling to bill collection to diagnosis. Process mining has the potential to identify bottlenecks both in the finance department and in the emergency room. Few fields offer more dramatic (and potentially life-changing) opportunities for process improvement than healthcare.

Retail

Retail organizations have been augmenting their businesses with e-commerce sites for decades now. But unlike physical stores, the volume of transactions through these e-commerce sites can reach millions per day during peak seasons. Customer fallout becomes increasingly risky — and expensive — as e-commerce flows become not only more complex but carry a higher dollar value. Process mining helps retail organizations ensure that customers are able to complete orders quickly and effectively without problems.

HOW ORGANIZATIONS
USE PROCESS MINING

Product analytics

With the growth of digital services delivered through connected web and mobile experiences, organizations need a way to look across a customer experience to understand if dropoffs or fallout are occurring. Understanding users' behavior through these digital product experiences is essential for sustainable success. Process mining provides a way to combine web logs with other customer engagement data to understand the end-to-end journey of a customer through a digital product experience.

Finance order-to-cash acceleration

Finance teams are always under pressure to accelerate the processing of sales orders. Bottlenecks in critical sales processes can lead to real money being left on the table. Process mining can help provide visibility into complex order-to-cash processes to understand where bottlenecks may be occurring so that orders can be processed more quickly.

Manufacturing supply chain acceleration

Manufacturing and supply chain organizations are always looking for ways to continuously improve cycle times and become leaner. Process mining can help these organizations deliver even more efficiency by providing an end-to-end view of material flow throughout the supply chain.

A FOUR-STEP PLAN FOR
GETTING STARTED WITH PROCESS MINING

Identify the problem

What's one business process problem everyone in your organization would agree is crucial to solve? You probably already know, because you probably spend a lot of your time working on it.

Determine your success metrics

Now that you've identified the problem, how much is it costing your business? Or what's the cost of ignoring an opportunity? What is the key performance indicator your boss keeps bugging you about? In other words, how will you know that you've solved the problem, and how will you be able to prove it with numbers?

Identify the data

What sources of data will you need to be able to comprehensively understand the business process problem? What event data from which applications and systems will you need to get continuous transparency into the end-to-end process?

Pilot a discreet but meaningful project

A pilot project can be vital to proving the potential value of a process mining solution. Make sure the project can be accomplished relatively quickly and can deliver specific, measurable outcomes everyone in your organization can understand. You'll get much more support if you can say your project used previously hidden data to reduce process time by 32 percent than if you just say it increased efficiency.

BRAINSTORM SOLUTIONS
TO THE IDENTIFIED PROCESS PROBLEMS

You're not in this alone. If you've picked a process problem with sufficient impact on your business, there will be other stakeholders with a vested interest in helping you solve it. Form a cross-functional team across business and data stakeholders and let them contribute their ideas. Not only will you get the broadest possible view of the problem, but you'll have others invested in helping you succeed.

ZERO IN ON A
SPECIFIC SOLUTION

Once you have identified possible root causes, use the cross-functional team to develop and document a suitable remediation. Many industries require remediations themselves to be backed up with data-driven justification, so use your data not only to identify the problem but to justify the solution. Once the remediation is deployed, you can iterate on this overall approach to continuously discover any new problems that might creep up.

CONCLUSION

As your business processes become increasingly digital and your organization generates more and more data, bottlenecks, fallout and poor operational performance become more and more expensive. You know you need an approach that turns your data into an opportunity and not a risk, and you know there's a better way to do it than a spreadsheet. Tackling the data chaos in your organization can be a daunting task, but in the end, the rewards will be enormous.

Put a process mining solution in place to better understand the current state of your systems and processes, identify any deviations and get back on course.

ABOUT SPLUNK.

Splunk Inc. makes machine data accessible, usable and valuable to everyone. Find out more about how Splunk can help you get real-world insight from your data to **improve your business processes**.

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